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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,521	12/07/2001	Douglas M. Dillon	PD-970363A	1352
20991 7590 03/18/2008 THE DIRECTV GROUP, INC. PATENT DOCKET ADMINISTRATION CA / LA1 / A109 P O BOX 956 EL SEGUNDO, CA 90245-0956				
EXAMINER TRAN, NGHI V				
ART UNIT 2151		PAPER NUMBER		
MAIL DATE 03/18/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/010,521

**Applicant(s)**

DILLON ET AL.

**Examiner**

Nghi V. Tran

**Art Unit**

2151

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17, 18, 21-24, 26-28, 31-34, 36, 37, 47, 48, 51-54, 56, 57 and 59-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17, 18, 21, 22, 26-28, 31, 32, 37, 47, 48, 51, 52 and 57 is/are allowed.
- 6) ☒ Claim(s) 23-24, 33-34, 36, 53-54, 56, and 59-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. This office action is in response to the Office Action filed on July 27, 2007. Claims 17, 27, 47, 59, 60, and 61 have been amended. Claims 1-16, 19-20, 25, 29-30, 35, 38-46, 49-50, 55, and 58 have been canceled. Therefore, claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 are presented for further examination.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 24, 34, 36, and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Derby et al., United States Patent Number 5,359,593 (hereinafter Derby).
4. With respect to claims 24, 34, 36, and 54, Derby teaches a gateway [= network node 11] for use in a system [= packet communication network 10] wherein a first apparatus [= end-node 12], said gateway, and a second apparatus [= end-node 12] are

in TCP/IP network [= packet network], each of the first apparatus, said gateway, and the second apparatus having different IP addresses [fig.1], said gateway comprising:

a throttling unit [= bandwidth management system, figs.3-4] that is configured to throttle [= dynamic adjust bandwidth, figs.5-6] a user of the first apparatus in accordance with (1) a leaky bucket analysis [= leaky bucket module **34**] of the user's throughput [fig.4] and (2) a level of service [= quality of service QOS] subscribed to by the user [col.5, ll..3 through col.6, ll.43].

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23, 33, 53, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalampoukas et al., United States Patent Number 6,438,101 (hereinafter Kalampoukas), in view of Chapman et al., United States Patent Number 6,330,226 (hereinafter Chapman).

7. With respect to claims 23, 33, 53, and 56, Kalampoukas teaches a gateway [= gateway router **105, 110, 115**] for use in a system wherein a first apparatus [= communication device **135**], said gateway, and a second apparatus [= communication

device **125**] are in TCP/IP network [= rate-controlled network **100**], each of the first apparatus, said gateway, and the second apparatus having different IP addresses [fig.1], said gateway comprising:

a throttling unit [= adjust window size, col.4, ll.48-67] that is configured to throttle a user of the first apparatus in accordance with a level of service subscribed to by the user of the first apparatus [= different grades of service such as ABR, CBR, or VBR, col.4, ll.10-13].

However, Kalampoukas does not explicitly show determining the number of TCP connections that are open.

In a communication system, Chapman discloses determining the number of TCP connections that are open [= keep track all TCP connections and keep count of the total number, col.1, ll.59-60].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Kalampoukas in view of Chapman by determining the number of TCP connections that are open because this feature can support and limit new connections [Chapman, col.1, ll.61-62]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to reduce connections or the amount of traffic to keep the loss below the threshold [Chapman, col.2, ll.1-2].

8. Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derby, in view of Kalampoukas et al., United States Patent Number 6,438,101 (hereinafter Kalampoukas).

9. With respect to claims 59-61, Derby teaches a gateway for use in a system wherein a first apparatus, said gateway, and a second apparatus are in a TCP/IP network, each of the first apparatus, said gateway, and the second apparatus having different IP addresses, said gateway comprising:

- a determining unit that is configured to determine which of plurality of service plans a user of the first apparatus subscribes to [col.2, ll.19-67]; and
- a throttling unit [= bandwidth management system, figs.3-4] that is configured to throttle [= dynamic adjust bandwidth, figs.5-6] the user in accordance with (1) a leaky bucket analysis [= leaky bucket module 34] of the user's throughput [fig.4] and (2) the service plan [= quality of service QOS] subscribed to by the user as determined by said determining unit [col.5, ll.3 through col.6, ll.43],
- wherein said throttling unit intercepts a packet on a TCP/IP connection between the first apparatus and the second apparatus [fig.1].

However, Derby does not explicitly show wherein said throttling unit effects throttling by modifying a field in the packet to cause the second apparatus to change an amount of data it sends before awaiting a TCP ACK from the first apparatus.

In a managing congestion, Kalapoukas discloses wherein said throttling unit effects throttling by modifying a field in the packet to cause the second apparatus to change an amount of data it sends before awaiting a TCP ACK from the first apparatus [col.1, ll.25-62].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Derby in view of Kalapoukas by modifying a field in the packet to cause the second apparatus to change an amount of data it sends before awaiting a TCP ACK from the first apparatus because this feature can adjust to flow of packets into the internetwork based on the window size specified in the acknowledgments [Kalapoukas, col.3, ll.27-29]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to control the flow of packets into the internetwork [Kalapoukas, col.3, ll.3-4].

***Allowable Subject Matter***

10. Claims 17-18, 21-22, 26-28, 31-32, 37, 47-48, 51-52, and 57 are allowed.

***Response to Arguments***

11. Applicant's arguments, see the Applicant Remarks, filed July 27, 2007, with respect to claims 17-61 have been fully considered and are persuasive. The previous non-final rejection of claims 17-61 has been withdrawn.

12. Applicant's arguments with respect to claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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/John Follansbee/  
Supervisory Patent Examiner, Art Unit 2151